

MAY 15 2006

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FROM: Peter Yim  
Reg. 44,417

DATE: May 15, 2006

Number of pages with cover page:	14	
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Comments:

**PLEASE PROCESS THE ATTACHED.**

Re: U.S. Patent Application No. 10/608,300  
For: OPTICAL METROLOGY OF STRUCTURES FORMED ON  
SEMICONDUCTOR WAFERS USING MACHINE LEARNING  
SYSTEMS  
By: Srinivas DODDI et al.  
Our reference: 50998-20055.00

Attached is the following:

1. Transmittal (1 page)
2. Amendment Under 37 CFR 1.111 (12 pages)

MAY 15 2006

PTO/SB/21 (08-04)

Approved for use through 07/31/2006. OMB 0851-0031  
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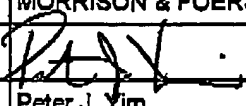
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<b>TRANSMITTAL FORM</b>  <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/608,300	
	Filing Date	June 27, 2003	
	First Named Inventor	Srinivas DODDI	
	Art Unit	2121	
	Examiner Name	N. Brown	
Total Number of Pages in This Submission	13	Attorney Docket Number	509982005500

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply (12 pages) <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Facsimile Cover Sheet (not counted as part of this submission)
Remarks		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name	MORRISON & FOERSTER LLP (Customer No. 20872)		
Signature			
Printed name	Peter J. Yim		
Date	May 15, 2006	Reg. No.	44,417

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Dated: May 15, 2006

Signature: Veterie Cohen (Veterie Cohen)

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Signature:

*Valario Cohen*  
(Valario Cohen)

Docket No.: 509982005500  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Srinivas DODDI et al.

Application No.: 10/608,300

Filed: June 27, 2003

Art Unit: 2121

For: OPTICAL METROLOGY OF STRUCTURES  
FORMED ON SEMICONDUCTOR WAFERS  
USING MACHINE LEARNING SYSTEMS

Examiner: N. Brown

**AMENDMENT UNDER 37 C.F.R. 1.111**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Office Action dated February 15, 2006, (Part of Paper No./Mail Date 021006). Accordingly, this response is timely filed. Reconsideration and allowance of the pending claims, as amended, in light of the remarks presented herein are respectfully requested.

sf-2129817